## WHAT IS CLAIMED IS:

1. A compound according to formula I:

$$\begin{array}{c|c} O & & & \\ \hline \\ O & & \\ \hline \\ O & & \\ \end{array} \\ \begin{array}{c} R^4 \\ \hline \\ R^2 \\ \hline \\ R^1 \\ (I) \end{array}$$

wherein:

- A)  $R^{1}$  is  $-L^{1}-[C(R^{6a}R^{6b})]_{m}R^{7}$ , wherein:
  - a)  $L^1$  is selected from the group consisting of covalent bond, -O-, -S-, -N-, -CO<sub>2</sub>-, -CO-, -OCO<sub>2</sub>-, -SO-, -SO<sub>2</sub>-, -CSN(R<sup>8</sup>)-, -CON(R<sup>8</sup>)O-, -CON(R<sup>8</sup>)-, -OCON(R<sup>8</sup>)-; wherein R<sup>8</sup> is hydrogen or substituted or unsubstituted C<sub>1</sub>-C<sub>5</sub> alkyl;
  - b) R<sup>6a</sup> and R<sup>6b</sup> are each independently selected from the group consisting of hydrogen, -OR<sup>9</sup>, -N(R<sup>9</sup>)<sub>2</sub>, -CO<sub>2</sub>R<sup>9</sup>, -CON(R<sup>9</sup>)<sub>2</sub>, -NHCOR<sup>9</sup>, -NHCO<sub>2</sub>R<sup>9</sup>, =NR<sup>9</sup>, -R<sup>9</sup>, and mixtures thereof; wherein each R<sup>9</sup> is independently selected from the group consisting of hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>5</sub> alkyl, and substituted or unsubstituted aryl or alkylenearyl; or two R<sup>9</sup> units can be taken together to form a substituted or unsubstituted carbocyclic or heterocyclic ring comprising from 3 to 7 atoms;
  - c) m is an index selected from 0 to 5;
  - d) R<sup>7</sup> is selected from the group consisting of nil, hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>10</sub> alkyl, substituted or unsubstituted C<sub>1</sub>-C<sub>10</sub> heteroalkyl, substituted or unsubstituted hydrocarbyl, substituted or unsubstituted heterocyclyl, substituted or unsubstituted aryl or alkylenearyl, substituted or unsubstituted heteroaryl or alkyleneheteroaryl; or
  - e) R<sup>7</sup> and a R<sup>9</sup> can be taken together to form a substituted or unsubstituted carbocyclic or heterocyclic ring comprising from 3 to 7 atoms;
- B)  $R^2$  is  $-(CH_2)_j-L^2-[C(R^{11a}R^{11b})]_gR^{12}$ , wherein:
  - a) j is an index selected from 0 to 5;

- b)  $L^2$  is selected from the group consisting of covalent bond, -O-, -S-, -N-, -CO<sub>2</sub>-, -CO-, -OCO<sub>2</sub>-, -SO-, -SO<sub>2</sub>-, -CSN(R<sup>10</sup>)-, -CON(R<sup>10</sup>)-, -CON(R<sup>10</sup>)O-, -OCON(R<sup>10</sup>)-; wherein R<sup>10</sup> is hydrogen or substituted or unsubstituted C<sub>1</sub>-C<sub>5</sub> alkyl;
- c) R<sup>11a</sup> and R<sup>11b</sup> are each independently selected from the group consisting of hydrogen, -OR<sup>13</sup>, -N(R<sup>13</sup>)<sub>2</sub>, -CO<sub>2</sub>R<sup>13</sup>, -CON(R<sup>13</sup>)<sub>2</sub>, -NHCOR<sup>13</sup>, -NHCO<sub>2</sub>R<sup>13</sup>, =NR<sup>13</sup>, -R<sup>13</sup>, and mixtures thereof; wherein each R<sup>13</sup> is independently selected from the group consisting of hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>5</sub> alkyl, and substituted or unsubstituted aryl or alkylenearyl; or two R<sup>13</sup> units can be taken together to form a substituted or unsubstituted carbocyclic or heterocyclic ring comprising from 3 to 7 atoms;
- d) g is an index selected from 0 to 5;
- e) R<sup>12</sup> is selected from the group consisting of nil, hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>10</sub> alkyl, substituted or unsubstituted hydrocarbyl, substituted or unsubstituted aryl or alkylenearyl, substituted or unsubstituted heteroaryl or alkyleneheteroaryl; or
- f) R<sup>12</sup> and a R<sup>13</sup> can be taken together to form a substituted or unsubstituted carbocyclic or heterocyclic ring comprising from 3 to 7 atoms; and
- C) R<sup>4</sup> and R<sup>5</sup> are each independently selected from hydrogen or substitution unit.
- 2. The compound of claim 1 having the formula (II):

- 3. The compound of claim 2, wherein:
  - a) j is 0; and
  - b) L<sup>2</sup> is -CON(R<sup>8</sup>)-; and
  - c) R<sup>6a</sup> and R<sup>6b</sup> are each hydrogen.

- 4. The compound of Claim 3, wherein  $L^1$  is selected from the group consisting of -CO<sub>2</sub>-, and SO<sub>2</sub>-.
- 5. The compound of Claim 4, wherein R<sup>7</sup> is substituted or unsubstituted phenyl.
- 6. The compound of Claim 2, wherein L<sup>1</sup> is selected from -CO-, -CO<sub>2</sub>-, -CONH-, and -SO<sub>2</sub>-.
- 7. The compound of Claim 6, wherein R<sup>2</sup> is hydrogen.
- 8. The compound of Claim 2, wherein
  - a) R<sup>2</sup> is hydrogen; and
  - b)  $L^1$  is -CO-
- 9. The compound of Claim 8, wherein:
  - a) R<sup>6a</sup> and R<sup>6b</sup> are each hydrogen; and
  - b) m is an index from 1-5.
- 10. The compound of Claim 9, wherein R<sup>7</sup> substituted or unsubstituted phenyl.
- 11. The compound of Claim 2, wherein:
  - a) j is 0; and
  - b)  $L^2$  is  $-CON(R^8)$ -.
- 12. The compound of Claim 11, wherein:
  - a) L<sup>1</sup> is selected from -CO-, and -CO<sub>2</sub>-; and
  - b)  $R^7$  is substituted or unsubstited  $C_1$ - $C_{10}$  alkyl.
- 13. The compound of Claim 2, wherein:
  - a)  $L^1$  is  $-CO_2$ -; and
  - b)  $R^7$  is substituted or unsubstituted  $C_1$ - $C_{10}$  alkyl.
- 14. The compound of Claim 13, wherein:
  - a) j is 0; and

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- b) L<sup>2</sup> is selected from covalent bond, -CO<sub>2</sub>-, and CON(CH<sub>3</sub>)O-
- 15. The compound of Claim 14, wherein  $R^{12}$  is selected from substituted or unsubstituted  $C_{1-}$   $C_{10}$  alkyl.
- 16. The compound of Claim 1, wherein the compound is selected from the group consisting of:
- (S)-3-Methylcarbamoyl-7-sulfoamino-3,4-dihydro-1*H*-isoquinoline-2-carboxylic acid *tert*-butyl ester; [(S)-3-Methylcarbamoyl-2-(3-phenyl-propionyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl]sulfamic acid; [(S)-2-Benzylcarbamoyl-3-methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl]sulfamic acid; (S)-(3-Methylcarbamoyl-2-phenylmethanesulfonyl-1,2,3,4-tetrahydro-isoquinolin-7-yl)-sulfamic acid; (S)-{3-Methylcarbamoyl-2-[3-(4-trifluoromethyl-phenyl)-propionyl]-1,2,3,4tetrahydro-isoquinolin-7-yl}-sulfamic acid; (S)-[3-Methylcarbamoyl-2-(4-phenyl-butyryl)-1,2,3,4tetrahydro-isoquinolin-7-yl]-sulfamic acid; (S)-[3-Methylcarbamoyl-2-(5-phenyl-pentanoyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl]-sulfamic acid; (S)-{3-Methylcarbamoyl-2-[3-(3-sulfoaminophenyl)-propionyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (S)-[3-Methylcarbamoyl-2-(3-p-tolyl-propionyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl]-sulfamic acid; (S)-{2-[3-(3-Hydroxyphenyl)-propionyl]-3-methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (S)-{2-[3-(4-Methoxy-phenyl)-propionyl]-3-methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl}sulfamic acid; (S)-[3-Benzylcarbamoyl-2-(4-propyl-benzoyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl]sulfamic acid; (S)-[3-Benzylcarbamoyl-2-(3-phenyl-propionyl)-1,2,3,4-tetrahydro-isoquinolin-7yl]-sulfamic acid; (S)-3-Benzylcarbamoyl-7-sulfoamino-3,4-dihydro-1*H*-isoquinoline-2carboxylic acid benzyl ester; (S)-{3-Methylcarbamoyl-2-[3-(3-sulfamoyl-phenyl)-propionyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (S)-{2-[3-(3-Acetylsulfamoyl-phenyl)propionyl]-3-methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (S)-{3-Methylcarbamoyl-2-[3-(3-propionylsulfamoyl-phenyl)-propionyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (S)-(2-{3-[3-(2,2-Dimethyl-propionylsulfamoyl)-phenyl}-propionyl}-3methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl)-sulfamic acid; (S)-{2-[3-(3-Benzoylsulfamoyl-phenyl)-propionyl]-3-methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl}sulfamic acid; (S)-{3-Methylcarbamoyl-2-[3-(4-sulfamoyl-phenyl)-propionyl]-1,2,3,4-tetrahydroisoquinolin-7-yl}-sulfamic acid; (S)-{2-[3-(4-Acetylsulfamoyl-phenyl)-propionyl]-3methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (R)-{3-Methylcarbamoyl-2-[3-(3-sulfamoyl-phenyl)-propionyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (R)-{2-[3-(3-Acetylsulfamoyl-phenyl)-propionyl]-3-methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl}-

 $sulfamic\ acid;\ (S)-3-[3-(3-Methylcarbamoyl-7-sulfoamino-3,4-dihydro-1 \textit{H-} is oquino lin-2-yl)-3-line (S)-3-[3-(3-Methylcarbamoyl-7-sulfoamino-3,4-dihydro-1 \textit{H-} is oquino line (S)-1 - (S)-[3-(3-Methylcarbamoyl-7-sulfoamino-3,4-dihydro-1 \textit{H-} is oquino line (S)-[3-(3-Methylcarbamoyl-7-sulfoamino-3,4-dihydro-1 \text{H-} is oquino line (S)-[3-(3-Methylcarbamoyl-7-sulfoamino-3,4$ oxo-propyl]-benzoic acid; (S)-{2-[3-(3-Acetylsulfamoyl-phenyl)-propionyl]-3phenethylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (S)-(2-Benzoyl-3-propionyl]-3-methylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; 7-Sufoamino-3,4-dihydro-1*H*-isoquinoline-2-carboxylic acid *tert*-butyl ester; 7-Sulfoamino-3,4-dihydro-1*H*isoquinoline-2-carboxylic acid benzyl ester; 2-(Benzylcarbamoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl)-sulfamic acid; [2-(3-Phenyl-propionyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl]-sulfamic acid;  $\{2-[2-(1-methyl-1H-indol-3-yl)-acetyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl\}-sulfamic\ acid;\ 2-(1-methyl-1H-indol-3-yl)-acetyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl\}-sulfamic\ acid;\ 2-(1-methyl-1H-indol-3-yl)-acetyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl\}-sulfamic\ acid;\ 2-(1-methyl-1H-indol-3-yl)-acetyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl]-sulfamic\ acid;\ 2-(1-methyl-1H-indol-3-yl)-acetyll-ac$ (Phenylmethanesulfonyl-1,2,3,4-tetrahydro-isoquinolin-7-yl)-sulfamic acid; 4-Oxo-4(7-yl)-sulfamic acid; sulfoamino-3,4-dihydro-1H-isoquinolin-2-yl)-butyric acid; {2-[3-(3-Sulfoamino-phenyl)propionyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; {2-[3-(3-Acetylsulfamoyl-phenyl)propionyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; {2-[3-(3-Sulfamoyl-phenyl)propionyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; (S)-4-(3-Methylcarbamoyl-7sulfoamino-3,4-dihydro-1*H*-isoquinolin-2-yl)-4-oxo-butyric acid; (S)-3-Phenethylcarbamoyl-7sulfoamino-1,2,3,4-tetrahydro-naphthalene-2-carboxylic acid tert-butyl ester; (S)-3-Ethylcarbamoyl-7-sulfoamino-1,2,3,4-tetrahydro-naphthalene-2-carboxylic acid tert-butyl ester; (S)-(3-Benzylcarbamoyl-2-hexanoyl-1,2,3,4-tetrahydro-isoquinolin-7-yl)-sulfamic acid; (S)-3-Benzylcarbamoyl-7-sulfoamino-3,4-dihydro-1H-isoquinoline-2-carboxylic acid tert-butyl ester; (R)-7-Nitro-1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid; (S)-3-Methylcarbamoyl-7sulfoamino-3,4-dihydro-1*H*-isoquinoline-2-carboxylic acid tert-butyl ester; (S)-7-Nitro-3,4dihydro-1H-isoquinoline-2,3-dicarboxylic acid-2-tert-butyl ester-3-methyl ester; (S)-3-Hydroxymethyl-7-sulfoamino-3,4-dihydro-1H-isoquinoline-2-carboxylic acid tert-butyl ester; (S)-3-(Methoxy-methyl-carbamoyl)-7-sulfoamino-3,4-dihydro-1*H*-isoquinoline-2-carboxylic acid tert-butyl ester; (S)-3-(Methoxy-methyl-carbamoyl)-7-sulfoamino-3,4-dihydro-1H-isoquinoline-2carboxylic acid tert-butyl ester; (S)-7-Sulfoamino-3,4-dihydro-1H-isoquinoline-2,3-dicarboxylic acid 2-tert-butyl ester 3-isobutyl ester;{3-Methylcarbamoyl-2-[3-(naphthalene-1-sulfonyl)propionyl]-1,2,3,4-tetrahydro-isoquinolin-7-yl}-sulfamic acid; and R-[1-Carbamoylmethyl-2-oxo-2(7-sulfoamino-3,4-dihydro-1*H*-isoquinolin-2-yl)-ethyl]-carbamic acid *tert* butyl ester.

17. A method of treating a protein tyrosine phosphatase (PTPase) mediated disorder comprising administering a compound of Claim 1 to a subject in need thereof.

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- 18. The method of Claim 17, wherein the disorder is selected from the group consisting of atherosclerotic cardiovascular disease including peripheral vascular disease, coronary disease and cerebral vascular disease; heart failure; hypertension; diabetes (Type 1 and Type 2); skeletal muscle atrophy; osteoporosis; obesity; disorders of the gastrointestinal tract including inflammatory bowel disease and ulcer; wound healing and wrinkle repair/prevention; hair loss and cancer.
- 19. A pharmaceutical composition comprising:
  - a) safe and effective amount of a compound of Claim 1;
  - b) a pharmaceutically-acceptable carrier.